Oregon
Kate Brown, Governor

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October 27, 2015

Melissa Peterson
Legal Counsel
Sulzer Pumps (US) Inc.
800 Koomey Road
Brookshire, TX 77423

RE: DEQ Comments
Sulzer Pump Source Control Evaluation Report dated May 7, 2015
ECSI #1235

Dear Ms. Peterson:

The Oregon Department of Environmental Quality (DEQ) reviewed the above-referenced report, submitted on your behalf by Geodesign, Inc. DEQ's comments are provided below. I have attached the United States Environmental Protection Agency (EPA) comments on the Source Control Evaluation (SCE). The DEQ comments below were prepared in consideration of EPA comments.

General DEQ Comments

1. The SCE presents a substantial amount of information and reflects significant efforts by Sulzer. However, the SCE report does not demonstrate that the stormwater pathway has been controlled to the extent feasible. To assess source control effectiveness DEQ suggests constructing a sampling chronology like the one attached, supported with text. The chart shows iterative sampling events and completed Source Control Measures (SCMs) and performance sampling to identify where higher concentrations have been addressed in order to focus just on tracing the areas where contaminants continue to exceed EPA/DEQ Joint Source Control Screening Level Values (SLVs) for Portland Harbor. For the Sulzer site these include cadmium, bis(2-ethylhexyl)phthalate, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in one or more drainage basins. Another request is to plot the site data points on the rank-order curves distinguishing them by date (see attached example). DEQ believes that additional source tracing work, SCMs and performance monitoring are required, but can be targeted and limited.

2. Please split Table 2 into multiple pages to improve legibility.

3. Please incorporate EPA Preliminary Remediation Goals (PRGs) into data screening tables. I have attached the latest EPA PRGs to this letter. Bank soil/erodible soil/catch basin sediment should be screened against RAO 9 values. Groundwater should be screened against RAO 4 (human health) and RAO 8 (ecological). The SCE text should state whether site contaminant levels are above or below the EPA PRGs.

Specific DEQ Comments

1. Table 5. Why are results for PCBs listed as “unknown”?

2. Table 9 is entitled “Historical Bank Sediment Sampling Analytical Results”. I believe these samples were collected at the base of the rip-rap and represent sediment conditions rather than bank soil. Please clarify the table name.

3. Table 11 – This table presents data for temporary wells previously sampled. Some of the temporary well locations listed on Table 11 (e.g., GP-12, GP-13, and GP-14) are not shown on Figure 3. Conversely, Figure 3 presents some temporary well locations but data is not presented in Table 11 (e.g. GP-2 and GP-9) for these locations. Historical sample results should be presented in their entirely in order to characterize groundwater to the fullest extent possible.

4. Figure 6 - Please include a graph for PCB concentrations.

5. Section 2.0

   This section focuses on the activities and best management practices (BMPs) implemented by Sulzer, with minimal discussion of the Dolan operations. The Dolan activities are discussed in the Quantum Stormwater Pollution Control Plan. According to the City of Portland, there is a building in drainage basin E which is used by Sulzer pumps, but is owned by Dolan (the building that has roof drainage to Outfalls 1 and 2). Please include a brief discussion of this building.

6. Please confirm the status of the storage building in Drainage basin D. It appears to have been removed. Revise site figures if needed.

7. Section 2.2.4

   Are catch basins 42 and 43 fitted with storm filters? Please add this information as appropriate.

8. Section 2.5.2 Stormwater Permit Sampling

   DEQ has forwarded available data from Quantum’s 1200Z permit sampling for incorporation into the SCE.

9. Section 3.1 and 3.2.1

Slag should be discussed as a potential source of metals to river sediment. Please present slag testing results in the SCE Report.

10. Section 3.2.1

    This section should describe the 100J permit issued to Sulzer, and the 1200Z permit issued to Quantum, and current permit status.

11. Section 4.0

    The report includes two additional rounds of stormwater data from Drainage Basin F. The November 2013 event sampled stormwater at CB-16 to represent Basin F contributions to OF-15. Metals concentrations for this event were the highest of all the events sampled for the SCE. Section 4.0 does not indicate that CB-16 was cleaned as part of the November 2013 CB and line cleaning activities at the site. Rationale was not provided for the upward trend in these results. More discussion is needed to demonstrate that future concentrations are not expected to be significantly elevated and to support the conclusion that additional controls are not warranted in Basin F.

    Section 4.0 states that a September 2013 camera survey indicated sediment buildup at catch basin inverts CB-16 and CB-17, but only CB-17 (and not CB-16 and the line from these inlets to OF-15) was cleaned in the subsequent cleaning effort in November 2013. What was the rationale for not cleaning this portion of the site storm system?

12. Section 5.2.2

    The hydrographs presented in Appendix D don't show the sample times at all locations for each event. Can these be added?

13. Section 7.0, page 25

    A source control evaluation for the riverbank soil erosion pathway should be included in this section. In their comments, EPA requested additional characterization of the bank below the mean high water mark. Based on existing data, DEQ concludes the bank contains PCBs and metals above Portland Harbor Preliminary PRGs and EPA/DEQ Joint Source Control SLVs that could impact Willamette River sediment if eroded and deposited in the sediment bed, or affect an in-water remedy being contemplated by EPA adjacent to this area. To address this concern DEQ recommends that Sulzer complete a bank stability assessment, to include the geometry and composition of river bank soil, extent of armoring, and an assessment of erosion mechanisms. This will need to address the areas concealed underneath the existing docks and may require observation from a boat given the potentially hazardous condition of the dock. Bank areas that were not sampled should be discussed and identified as data gaps for future reference.

14. Section 8, page 29

    A conclusion for metals concentrations in groundwater should be included. Arsenic was detected and exceeded the PRG for human health in many samples, but below the PRGs for aquatic life.

15. Section 8.0, page 29

    This section states that "In riverbank soil, PCBs (together with some metals) were detected slightly above the most stringent SLV." This statement is not consistent with the data presented in Tables 3 and 4 which describe arsenic, copper, lead, manganese, mercury, nickel, zinc, indeno(1,2,3-cd)pyrene, Aroclor-1260, and total PCBs exceeding the most stringent SLV within the same order of magnitude to three orders of magnitude. This sentence should be revised to evaluate concentration of chemicals in river bank soils against PRGs.

I suggest meet to discuss these comments and how they will be addressed. Please contact me at pugh.mark@deq.state.or.us or 503 229-5587 should you wish to schedule a meeting.

Sincerely,

Mark Pugh, R.G.
Project Manager
DEQ Northwest Region Cleanup and Tanks Program

Enclosures: EPA Comments on SCE Report dated August 27, 2015
EPA Preliminary Remediation Goals (PRGs)
Example sampling chronology chart and rank-order curve plot

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